

Expanding the Environmental Conversation (EEC)

Increasing the Understanding and Transparency of EPA's Sampling Data

“Using Color to Enhance Public Communications”

Key Performance Indicator: “Conduct pilot studies at a contaminated site in each of ten EPA regions. Activities in pilot communities include providing simplified scientific language to explain sampling results, visual illustrations and clear explanations of contamination levels and associated risks, and recommended actions the public should take to protect themselves during environmental emergencies. *Evaluate the effectiveness of a color-coded methodology to explain sampling results and provide recommendations to the Agency for potential expanded use.*”

San Jacinto River Waste Pits Superfund Site, Harris Co., TX

For FY 11, Headquarters requested that Superfund Division identify two projects as pilots for color coding data. The San Jacinto River Waste Pits Superfund Site provides opportunities for two separate pilots using the Remedial Investigation and Feasibility Study (RIFS) and the Time Critical Removal Action (TCRA).

The San Jacinto Site is contaminated by paper mill waste from the Pasadena Champion Paper Mill. It consists of two impoundments located north of the Interstate 10 Highway Bridge and partially submerged in and around the San Jacinto River in Harris County. The primary hazardous substances are dioxins. Dioxin concentrations as high as 360,000 parts per trillion have been found in sediment samples collected from the submerged portion of the impoundments. Sediments from outside the original 1966 waste ponds have shown dioxin concentrations as high as 3,660 parts per trillion.

Status of the Pilot Project(s)

As part of the Agency's EEC initiative, Region 6 selected the San Jacinto Site to demonstrate how communications regarding sampling data can be made more understandable to the public through simple color-coding schemes. Moreover, because the San Jacinto Site is currently undergoing a Time Critical Removal Action in addition to the Remedial Investigation and Feasibility Study, the site affords the Superfund Division two separate opportunities to test new ways to simplify its scientific explanations to and conversations with the community.

Time Critical Removal Action (TCRA):

The PRPs are continuing to place “armor cap rock” over the waste pit cells, and the TCRA is currently projected to be complete in July. A Community Advisory Committee will meet in August to discuss the TCRA and to plan a public meeting for September. As part of the September meeting, EPA will discuss the effectiveness of the TCRA as a means of limiting public exposure to the primary hazardous substances at the site (dioxins).

Baseline samples used by EPA to delineate the contaminated area will be presented graphically in the form of a color-coded map, depicting and distinguishing among the highest, intermediate, and lowest concentrations of dioxin. Using the baseline sample map, EPA will graphically

represent the areal extent of the armor cap, showing the extent to which potential public exposure to dioxin contaminated sediments in the pits has been mitigated by the TCRA.

Remedial Investigation/Feasibility Study (RI/FS):

In response to public concerns regarding the possible transport of dioxin contaminated sediments into adjacent residential areas, the PRPs are working with EPA to sample soil for dioxin at 10 residential properties. EPA completed its review of the PRPs' proposed sampling plan and anticipates completion of field work in August. Residential property results will be documented and presented to each individual homeowner. The data will be shown numerically (concentration values) as well as categorically (e.g., color-coded). Emphasis will be placed on identifying any necessary actions that the affected homeowner should consider based upon the data. In addition, the results of the residential sampling will be presented to the community as part of an update on the RI/FS.